

Appl. No.: 10/791,659
Amdt. Dated: October 6, 2006
Reply to Office Action dated: April 6, 2006

REMARKS/ARGUMENTS

In an Office Action dated April 6, 2006, Claims 1 – 17, 19, 21 – 36, 38-51 and 53-56 were rejected under 35 U.S.C. 103(a) as being unpatentable over Riedy et al. (5,108,474), in view of Schultheiss et al. (2003/0000389 A1).

Riedy discloses a smoke filter of at least 3 layer construction. The filter construction consists of a prefilter layer comprising non-woven glass, a protective foam layer and a membrane layer. In Riedy, the prefilter layer is intended to "reduce the flow decay of the smoke filter by distributing most of the smoke particles through the thickness of the prefilter layer rather than on the surface of subsequent layers (Col. 3, ll 55-56). Riedy does not disclose the use of an electrostatic charge on the prefilter layer. The next layer is a protective foam layer that "protects the integrity of the polymeric microporous membrane from damage caused by the prefilter layer." (Abstract). The protective foam layer is intended to "preserve the integrity of the polymeric microporous membrane layer so that it can function as designed to prevent the passage of particles, prevent liquid overflow and maintain acceptable airflow" (Col. 4, ll 31-35).

The filter media of the present invention does not require a protective foam layer. A meltblown filtration media layer having electrostatic charge is disposed directly on the upstream side of the membrane filtration layer. Riedy specifically teaches away from such a construction by indicating that the prefiltration media may cause damage which prevents effective function of the membrane filtration layer.

Schultheiss et al. ("Schultheiss") teaches the use of triboelectret fiber mixtures in a prefilter media. However, substitution of an ePTFE membrane for the filter material in Schultheiss would not address the difficulties of membrane damage specifically described in Riedy. Thus it would be not obvious to one of skill in the art to construct a composite filter media comprising a membrane filtration layer and at least one meltblown filtration media layer having an

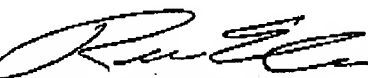
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electrostatic charge disposed directly on the upstream side of the membrane filtration layer.

Based on the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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